WHAT IS CLAIMED IS:

1. A method for driving a semiconductor memory composed of an MFS transistor including a field effect transistor having a gate electrode formed on a ferroelectric film or an MFIS transistor including a field effect transistor having a gate electrode formed on a multi-layer film of a ferroelectric film and a dielectric film, comprising the steps of:

writing a data in said semiconductor memory by changing a polarized state of said ferroelectric film by applying a voltage to said gate electrode; and

reading a data written in said semiconductor memory by detecting a current change appearing between a drain and a source of said field effect transistor by applying a voltage between the drain and the source of said field effect transistor with a voltage applied to said gate electrode,

wherein magnitude of the voltage applied between the drain and the source of said field effect transistor in the step of reading a data is set within a range where a drain-source current of said field effect transistor increases as a drain-source voltage thereof increases.

2. A method for driving a semiconductor memory composed of an MFMIS transistor including a ferroelectric capacitor formed above a gate electrode of a field effect transistor and having a control gate composed of an upper electrode of

said ferroelectric capacitor, comprising the steps of:

writing a data in said semiconductor memory by changing a polarized state of a ferroelectric film of said ferroelectric capacitor by applying a voltage to said control gate; and

reading a data written in said semiconductor memory by detecting a current change appearing between a drain and a source of said field effect transistor by applying a voltage between the drain and the source of said field effect transistor with a voltage applied to said control gate,

wherein magnitude of the voltage applied between the drain and the source of said field effect transistor in the step of reading a data is set within a range where a drain-source current of said field effect transistor increases as a drain-source voltage thereof increases.

3. A semiconductor memory composed of an MFS transistor including a field effect transistor having a gate electrode formed on a ferroelectric film or an MFIS transistor including a field effect transistor having a gate electrode formed on a multi-layer film of a ferroelectric film and a dielectric film, comprising:

first voltage supply means for supplying a first voltage to said gate electrode for changing a polarized state of said ferroelectric film in data write; and

second voltage supply means for supplying a second

voltage between a drain and a source of said field effect transistor in data read,

wherein magnitude of said second voltage supplied by said second voltage supply means is set within a range where a drain-source current of said field effect transistor increases as a drain-source voltage thereof increases.

4. A semiconductor memory composed of an MFMIS transistor including a ferroelectric capacitor formed above a gate electrode of a field effect transistor, comprising:

a control gate composed of an upper electrode of said ferroelectric capacitor;

first voltage supply means for supplying a first voltage to said control gate for changing a polarized state of said ferroelectric film in data write; and

second voltage supply means for supplying a second voltage between a drain and a source of said field effect transistor in data read,

wherein magnitude of said second voltage supplied by said second voltage supply means is set within a range where a drain-source current of said field effect transistor increases as a drain-source voltage thereof increases.